

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A facsimile communication method being a non-standard facsimile communication method, which is based on ITU-T Recommendation T-30 and executed by the use of a non-standard facilities signal NSF (hereinafter referred simply to as "NSF") and a non-standard facilities set-up signal NSS (hereinafter referred simply to as "NSS"), comprising the steps of:

adding independent transmission procedure capability information to said NSF and said NSS;

transmitting said NSS including said independent transmission procedure capability information in the case when said NSF including said independent transmission procedure capability information is detected by a transmission side; and

deleting said independent transmission procedure capability information after receiving said NSS; and

implementing an independent transmission procedure between both transmission and reception sides after detecting said NSS by the reception side.

2. (Original) A facsimile communication method as claimed in claim 1 wherein:

in said independent transmission procedure, a time for delivering preamble signals added to all the binary codes to be used in a facsimile communication procedure is reduced to a

predetermined time, which is shorter than that defined by said Recommendation, on and after said NSF including said independent transmission procedure capability information transmitted from the reception side was correctly discriminated by said transmission side as well as on and after said NSS including said independent transmission procedure capability information transmitted from the transmission side was correctly discriminated by said reception side.

3. (Currently Amended) A facsimile communication method as claimed in claim 2, wherein:

in said independent transmission procedure, after said ~~NFS~~ NSF including said independent transmission procedure capability information, a called subscriber identification signal CSI (hereinafter referred simply to as "CSI"), and a digital identification signal DIS (hereinafter referred simply to as "DIS") transmitted from the reception side were correctly discriminated by the transmission side as well as after said NSS including said independent transmission procedure capability information, a transmitting subscriber identification signal TSI (hereinafter referred simply to as "TSI"), a digital command signal DCS (hereinafter referred simply to as "DCS"), and a training check signal TCF (hereinafter referred simply to as "TCF"), which are returned from the transmission side to the reception side with respect to the signals transmitted from said reception side were correctly discriminated by the reception side, said reception side transmits repeatedly a first independent signal with a predetermined first redelivery interval for a purpose to notify said transmission side to the effect that said signals were correctly detected by the reception side, that a confirmation to receive signal CFR (hereinafter referred simply to as "CFR") is in the process of preparing transmission, and that communication between said transmission side and said reception side is in ongoing;

when the preparation for transmission of said CFR is completed, either the reception side transmits said CFR after transmission was completed if said first independent signal is in the process of the transmission, or said reception side transmits immediately said CFR if said first independent signal is not in the process of the transmission; and

said reception side transmits a disconnect signal DCN (hereinafter referred simply to as "DCN") in the case where said preparation for transmission of said CFR is not completed within a predetermined first waiting time.

4. (Original) A facsimile communication method as claimed in claim 3, wherein:

said first redelivery interval of said first independent signal is sufficiently shorter than a redelivery interval of a binary code signal in a standard facsimile transmission procedure.

5. (Original) A facsimile communication method as claimed in claim 4, wherein:

in said independent transmission procedure, the transmission side waits for said CFR signal after transmitting said TCF from said transmission side, but if no signal is received within a predetermined second waiting time after transmitting said TCF, said transmission side redelivers said NSS, said TSI, said DCS, and said TCF;

the number of times for redelivery of said NSS, said TSI, said DCS, and said TCF is fixed up to two;

if no signal is received within said second waiting time after a second time redelivery of said NSS, said TSI, said DCS, and said TCF, in other words, after a third time transmission of said NSS, said TSI, said DCS, and said TCF, said transmission side transmits said DCN;

when said first independent signal was received within said second waiting time after transmitting said TCF, said transmission side waits further for said CFR or said first independent signal during said second waiting time;

if no signal is received within said second waiting time after receiving said first independent signal, said transmission side transmits said DCN;

when said CFR was received either within said second waiting time after transmitting said TCF, or within said second waiting time after receiving said first independent signal, said transmission side transmits repeatedly a second independent signal with a predetermined second redelivery interval for a purpose to notify said reception side to the effect that said CFR was correctly detected, that image data is in the process of preparing transmission, and that communication between said transmission side and said reception side is in ongoing;

when the preparation for transmission of said image data is completed, either said transmission side transmits said image data after completing transmission of said second independent signal if it is in the course of the transmission, or said transmission side transmits immediately said image data if said second independent signal is not in the course of the transmission; and

when said preparation for transmission of said image data was not completed within said predetermined first waiting time after receiving said CFR, said transmission side transmits said DCN.

6. (Original) A facsimile communication method as claimed in claim 5, wherein:

said second redelivery interval of said second independent signal is sufficiently shorter than a redelivery interval of a binary code signal in a standard facsimile transmission procedure.

7. (Original) A facsimile communication method as claimed in claim 6, wherein:

in said independent transmission procedure, the reception side waits for said image data after transmitting said CFR from said reception side, but when said second independent signal was received within a predetermined fourth waiting time after transmitting said CFR, said reception side waits further for either said image data or said second independent signal for said fourth waiting time;

if no signal is received within said fourth waiting time after transmitting said CFR, said reception side redelivers said CFR after a lapse of said fourth waiting time;

the number of times for redelivery of said CFR is fixed up to two;

if said second independent signal or said image data is not received within said fourth waiting time after a second time redelivery of said CFR, in other words, after a third time transmission of said CFR, said reception side transmits said DCN; and

when said second independent signal or said image data is not received within said fourth waiting time after receiving said second independent signal within said fourth waiting time after transmission of said CFR, said reception side transmits said DCN.

8. (Original) A facsimile communication method as claimed in claim 7, wherein:

in said independent transmission procedure, the transmission side transmits a post message signal after transmitting said image data;

when said post message signal is received after receiving said image data, the reception side transmits repeatedly said first independent signal with said first redelivery interval for a purpose to notify said transmission side to the effect that said image data and said post message signal were correctly detected, that a message confirmation signal MCF (hereinafter referred

simply to as "MCF") is in the process of preparing transmission, and that communication between said transmission side and said reception side is in ongoing; and

when the preparation for transmission of said MCF is completed, said reception side transmits said MCF after completing transmission of said first independent signal in the case where it is in the process of transmission, or said reception side transmits immediately said MCF in the case where said first independent signal is not in the process of transmission.

9. (Original) A facsimile communication method as claimed in claim 8, wherein:

in said independent transmission procedure, the transmission side waits for said MCF or said first independent signal within a second waiting time after transmitting said post message signal, but if no signal was received within said second waiting time after delivering said post message signal, said transmission side redelivers said post message signal;

the number of times for redelivery of said post message signal is fixed up to two;

if said MCF is not received within said second waiting time after a second time redelivery of said post message signal, in other words, after a third time transmission of said post message signal, said transmission side transmits said DCN;

if said post message signal is a multipage signal MPS (hereinafter referred simply to as "MPS"), the transmission side waits further for said first independent signal or said MCF during said second waiting time in the case when said first independent signal was received within said second waiting time after transmitting said MPS;

said transmission side transmits said DCN in the case where no signal is received within said second waiting time after receiving said first independent signal;

if said post message signal is an end of procedure signal EOP (hereinafter referred simply to as "EOP") or an end of message signal EOM (hereinafter referred simply to as "EOM"), the transmission side waits further for said first independent signal or said MCF during said fourth waiting time in the case when said first independent signal was received within said second waiting time after transmitting said EOP or said EOM; and

when no signal is received within said fourth waiting time after receiving said first independent signal, the transmission side transmits said DCN.

10. (Original) A facsimile communication method as claimed in claim 9, wherein:

in said independent transmission procedure, if said post message signal is said EOP, a phase D procedure based on said Recommendation is conducted on and after said MCF was transmitted from the reception side, and the MCF thus transmitted was received by the transmission side; more specifically, said reception side waits for said DCN within said second waiting time after transmitting said MCF, and when said EOP was received again during waiting for said DCN, the reception side redelivers said MCF, while said transmission side transmits said DCN after receiving said MCF.

11. (Original) A facsimile communication method as claimed in claim 10, wherein:

in said independent transmission procedure, if said post message signal is said MPS, the transmission side transmits repeatedly said second independent signal with said second redelivery interval for a purpose to notify the reception side to the effect that MCF was correctly detected by said transmission side after receiving said MCF, that image data is in the process of

preparing transmission, and that communication between said transmission side and said reception side is in ongoing;

when the preparation for transmission of said image data is completed, said transmission side transmits said image data after completing transmission of said second independent signal in the case where it is in the process of transmission, or the transmission side transmits immediately said image data in the case where it is not in the process of transmission; and

if the preparation for transmission of said image data was not completed within said first waiting time after receiving said MCF, said transmission side transmits said DCN.

12. (Original) A facsimile communication method as claimed in claim 11, wherein:

in said independent transmission procedure, if said post message signal is said MPS, the reception side waits for said image data after transmitting said MCF, but when said second independent signal was received within said fourth waiting time after transmitting said MCF, said reception side waits further for said image data or said second independent signal during said fourth waiting time;

if said second independent signal or said image data is not received within said fourth waiting time after transmitting said MCF, said reception side redelivers said MCF again;

the number of times for redelivery of said MCF is fixed up to two;

if said second independent signal or said image data is not received within said fourth waiting time after a second time redelivery of said MCF, in other words, after a third time transmission of said MCF, said reception side transmits said DCN; and

if said second independent signal or said image data is not received within said fourth waiting time after receiving said second independent signal within said fourth waiting time after said MCF was transmitted, said reception side transmits said DCN.

13. (Original) A facsimile communication method as claimed in claim 12, wherein:

in said independent transmission procedure, if said post message signal is said EOM, the reception side prepares for transmission of said NSF, said CSI, and said DIS after transmitting said MCF to transmit these signals after completing the preparation;

when said EOM is received again within a predetermined third waiting time after transmitting said MCF before transmission of said NSF, said CSI, and said DIS, the reception side transmits again said MCF;

if a preparation for transmission of said NSF, said CSI, and said DIS is not completed within said predetermined third waiting time after transmitting said MCF, said reception side transmits said DCN;

said transmission side waits for said NSF, said CSI, and said DIS during said first waiting time after receiving said MCF; and

if these signals are not received within said first waiting time, said transmission side transmits said DCN.

14. (New) A facsimile communication method being a non-standard facsimile communication method, which is based on ITU-T Recommendation T-30 and executed by the use of a non-standard facilities signal NSF (hereinafter referred simply to as "NSF") and a non-standard facilities set-up signal NSS (hereinafter referred simply to as "NSS"), comprising the steps of:

adding independent transmission procedure capability information to said NSF and said NSS;

transmitting said NSS including said independent transmission procedure capability information in the case when said NSF including said independent transmission procedure capability information is detected by a transmission side; and

implementing an independent transmission procedure between both transmission and reception sides after detecting said NSS by the reception side,

wherein in said independent transmission procedure, a time for delivering preamble signals added to all the binary codes to be used in a facsimile communication procedure is reduced to a predetermined time, which is shorter than that defined by said Recommendation, on and after said NSF including said independent transmission procedure capability information transmitted from the reception side was correctly discriminated by said transmission side as well as on and after said NSS including said independent transmission procedure capability information transmitted from the transmission side was correctly discriminated by said reception side, and

wherein in said independent transmission procedure, after said NSF including said independent transmission procedure capability information, a called subscriber identification signal CSI (hereinafter referred simply to as "CSI"), and a digital identification signal DIS (hereinafter referred simply to as "DIS") transmitted from the reception side were correctly discriminated by the transmission side as well as after said NSS including said independent transmission procedure capability information, a transmitting subscriber identification signal TSI (hereinafter referred simply to as "TSI"), a digital command signal DCS (hereinafter referred simply to as "DCS"), and a training check signal TCF (hereinafter referred simply to as "TCF"),

which are returned from the transmission side to the reception side with respect to the signals transmitted from said reception side were correctly discriminated by the reception side, said reception side transmits repeatedly a first independent signal with a predetermined first redelivery interval for a purpose to notify said transmission side to the effect that said signals were correctly detected by the reception side, that a confirmation to receive signal CFR (hereinafter referred simply to as "CFR") is in the process of preparing transmission, and that communication between said transmission side and said reception side is in ongoing;

when the preparation for transmission of said CFR is completed, either the reception side transmits said CFR after transmission was completed if said first independent signal is in the process of the transmission, or said reception side transmits immediately said CFR if said first independent signal is not in the process of the transmission; and

said reception side transmits a disconnect signal DCN (hereinafter referred simply to as "DCN") in the case where said preparation for transmission of said CFR is not completed within a predetermined first waiting time.

15. (New) A facsimile communication method as claimed in claim 14, wherein:

said first redelivery interval of said first independent signal is sufficiently shorter than a redelivery interval of a binary code signal in a standard facsimile transmission procedure.

16. (New) A facsimile communication method as claimed in claim 15, wherein:

in said independent transmission procedure, the transmission side waits for said CFR signal after transmitting said TCF from said transmission side, but if no signal is received within

a predetermined second waiting time after transmitting said TCF, said transmission side redelivers said NSS, said TSI, said DCS, and said TCF;

the number of times for redelivery of said NSS, said TSI, said DCS, and said TCF is fixed up to two;

if no signal is received within said second waiting time after a second time redelivery of said NSS, said TSI, said DCS, and said TCF, in other words, after a third time transmission of said NSS, said TSI, said DCS, and said TCF, said transmission side transmits said DCN;

when said first independent signal was received within said second waiting time after transmitting said TCF, said transmission side waits further for said CFR or said first independent signal during said second waiting time;

if no signal is received within said second waiting time after receiving said first independent signal, said transmission side transmits said DCN;

when said CFR was received either within said second waiting time after transmitting said TCF, or within said second waiting time after receiving said first independent signal, said transmission side transmits repeatedly a second independent signal with a predetermined second redelivery interval for a purpose to notify said reception side to the effect that said CFR was correctly detected, that image data is in the process of preparing transmission, and that communication between said transmission side and said reception side is in ongoing;

when the preparation for transmission of said image data is completed, either said transmission side transmits said image data after completing transmission of said second independent signal if it is in the course of the transmission, or said transmission side transmits immediately said image data if said second independent signal is not in the course of the transmission; and

when said preparation for transmission of said image data was not completed within said predetermined first waiting time after receiving said CFR, said transmission side transmits said DCN.

17. (New) A facsimile communication method as claimed in claim 16, wherein:

said second redelivery interval of said second independent signal is sufficiently shorter than a redelivery interval of a binary code signal in a standard facsimile transmission procedure.

18. (New) A facsimile communication method as claimed in claim 17, wherein:

in said independent transmission procedure, the reception side waits for said image data after transmitting said CFR from said reception side, but when said second independent signal was received within a predetermined fourth waiting time after transmitting said CFR, said reception side waits further for either said image data or said second independent signal for said fourth waiting time;

if no signal is received within said fourth waiting time after transmitting said CFR, said reception side redelivers said CFR after a lapse of said fourth waiting time;

the number of times for redelivery of said CFR is fixed up to two;

if said second independent signal or said image data is not received within said fourth waiting time after a second time redelivery of said CFR, in other words, after a third time transmission of said CFR, said reception side transmits said DCN; and

when said second independent signal or said image data is not received within said fourth waiting time after receiving said second independent signal within said fourth waiting time after transmission of said CFR, said reception side transmits said DCN.

19. (New) A facsimile communication method as claimed in claim 18, wherein:

in said independent transmission procedure, the transmission side transmits a post message signal after transmitting said image data;

when said post message signal is received after receiving said image data, the reception side transmits repeatedly said first independent signal with said first redelivery interval for a purpose to notify said transmission side to the effect that said image data and said post message signal were correctly detected, that a message confirmation signal MCF (hereinafter referred simply to as "MCF") is in the process of preparing transmission, and that communication between said transmission side and said reception side is in ongoing; and

when the preparation for transmission of said MCF is completed, said reception side transmits said MCF after completing transmission of said first independent signal in the case where it is in the process of transmission, or said reception side transmits immediately said MCF in the case where said first independent signal is not in the process of transmission.

20. (New) A facsimile communication method as claimed in claim 19, wherein:

in said independent transmission procedure, the transmission side waits for said MCF or said first independent signal within a second waiting time after transmitting said post message signal, but if no signal was received within said second waiting time after delivering said post message signal, said transmission side redelivers said post message signal;

the number of times for redelivery of said post message signal is fixed up to two;

if said MCF is not received within said second waiting time after a second time redelivery of said post message signal, in other words, after a third time transmission of said post message signal, said transmission side transmits said DCN;

if said post message signal is a multipage signal MPS (hereinafter referred simply to as "MPS"), the transmission side waits further for said first independent signal or said MCF during said second waiting time in the case when said first independent signal was received within said second waiting time after transmitting said MPS;

said transmission side transmits said DCN in the case where no signal is received within said second waiting time after receiving said first independent signal;

if said post message signal is an end of procedure signal EOP (hereinafter referred simply to as "EOP") or an end of message signal EOM (hereinafter referred simply to as "EOM"), the transmission side waits further for said first independent signal or said MCF during said fourth waiting time in the case when said first independent signal was received within said second waiting time after transmitting said EOP or said EOM; and

when no signal is received within said fourth waiting time after receiving said first independent signal, the transmission side transmits said DCN.

21. (New) A facsimile communication method as claimed in claim 20, wherein:

in said independent transmission procedure, if said post message signal is said EOP, a phase D procedure based on said Recommendation is conducted on and after said MCF was transmitted from the reception side, and the MCF thus transmitted was received by the transmission side; more specifically, said reception side waits for said DCN within said second waiting time after transmitting said MCF, and when said EOP was received again during waiting for said DCN, the reception side redelivers said MCF, while said transmission side transmits said DCN after receiving said MCF.

22. (New) A facsimile communication method as claimed in claim 21, wherein:

in said independent transmission procedure, if said post message signal is said MPS, the transmission side transmits repeatedly said second independent signal with said second redelivery interval for a purpose to notify the reception side to the effect that MCF was correctly detected by said transmission side after receiving said MCF, that image data is in the process of preparing transmission, and that communication between said transmission side and said reception side is in ongoing;

when the preparation for transmission of said image data is completed, said transmission side transmits said image data after completing transmission of said second independent signal in the case where it is in the process of transmission, or the transmission side transmits immediately said image data in the case where it is not in the process of transmission; and

if the preparation for transmission of said image data was not completed within said first waiting time after receiving said MCF, said transmission side transmits said DCN.

23. (New) A facsimile communication method as claimed in claim 22, wherein:

in said independent transmission procedure, if said post message signal is said MPS, the reception side waits for said image data after transmitting said MCF, but when said second independent signal was received within said fourth waiting time after transmitting said MCF, said reception side waits further for said image data or said second independent signal during said fourth waiting time;

if said second independent signal or said image data is not received within said fourth waiting time after transmitting said MCF, said reception side redelivers said MCF again;

the number of times for redelivery of said MCF is fixed up to two;

if said second independent signal or said image data is not received within said fourth waiting time after a second time redelivery of said MCF, in other words, after a third time transmission of said MCF, said reception side transmits said DCN; and

if said second independent signal or said image data is not received within said fourth waiting time after receiving said second independent signal within said fourth waiting time after said MCF was transmitted, said reception side transmits said DCN.

24. (New) A facsimile communication method as claimed in claim 23, wherein:

in said independent transmission procedure, if said post message signal is said EOM, the reception side prepares for transmission of said NSF, said CSI, and said DIS after transmitting said MCF to transmit these signals after completing the preparation;

when said EOM is received again within a predetermined third waiting time after transmitting said MCF before transmission of said NSF, said CSI, and said DIS, the reception side transmits again said MCF;

if a preparation for transmission of said NSF, said CSI, and said DIS is not completed within said predetermined third waiting time after transmitting said MCF, said reception side transmits said DCN;

said transmission side waits for said NSF, said CSI, and said DIS during said first waiting time after receiving said MCF; and

if these signals are not received within said first waiting time, said transmission side transmits said DCN.